## ANNEX BETWEEN

# THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION GEORGE C. MARSHALL SPACE FLIGHT CENTER AND G-SPACE, INC.

UNDER SPACE ACT UMBRELLA AGREEMENT NO. SAA8-2033444, DATED \_\_\_\_\_ (ANNEX NUMBER 1)

#### ARTICLE 1. PURPOSE

This Annex shall be for the purpose of performing thermophysical properties measurements in the MSFC electrostatic levitation (ESL) laboratory. The proposed work involves the generation of thermophysical properties databases of heavy metal fluoride glass materials, including density, surface tension, and viscosity, using ESL.

The legal authority for this Annex, consistent with the Umbrella Agreement, is in accordance with the National Aeronautics and Space Act (51 U.S.C. § 20113(e)).

### ARTICLE 2. RESPONSIBILITIES

#### NASA MSFC will use reasonable efforts to:

- 1. Perform levitated materials processing of samples for thermophysical properties measurements per the Experiment Test Plan supplied by G-Space, Inc.
- 2. Collaborate with G-Space, Inc. to optimize procedures and optical configurations for thermophysical properties measurements.
- 3. Provide processing data files, including pyrometer, video data, and control loop data, for samples processed to G-Space, Inc.
- 4. Return samples to G-Space, Inc.
- 5. Analyze the raw data and generate thermophysical properties data (e.g. density, surface tension, and viscosity).
- 6. Provide post-processed thermophysical properties data to G-Space, Inc.

## G-Space will use reasonable efforts to:

- 1. Provide an Experiment Test Plan that specifies thermal profiles and the desired data for each sample.
- 2. Provide the samples necessary for NASA to execute the Experiment Test Plan.
- 3. Provide Safety Data Sheets (SDS) and available property data for samples.
- 4. Collaborate with NASA MSFC to answer questions about materials and optimize procedures and optical configurations for thermophysical properties measurements.

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## ARTICLE 3. SCHEDULE AND MILESTONES

The planned major milestones for the activities for this Annex defined in the "Responsibilities" Article are as follows:

1. G-Space provides Experiment Test Plan. Effective date plus 2 weeks

and then as needed

throughout the term of this

Annex.

2. G-Space provides samples, SDS and property data. Within 60 days of

Milestone 1.

3. NASA/MSFC performs levitated materials processing Within 120 days of

per Experiment Test Plan. Milestone 2.

4. NASA/MSFC provides processing data files (including Within 60 days of

pyrometer and video data) to G-Space, Inc. Milestone 3.

5. NASA/MSFC returns samples to G-Space, Inc. Within 60 days of

Milestone 3.

6. NASA/MSFC completes analysis of raw data to generate Within 120 days of

thermophysical properties data. Milestone 3.

Within 120 days of

7. NASA/MSFC provides G-Space, Inc. the post-processed Within 120 days of thermophysical properties data. Within 120 days of Milestone 3.

## ARTICLE 4. FINANCIAL OBLIGATIONS

A. Partner agrees to reimburse NASA an estimated cost of \$69,715 for NASA to carry out its responsibilities under this Annex. Partner agrees pay NASA \$49,728 prior to initiation of work under this Annex, and an additional \$19,987 three weeks prior to the start of Milestone No. 6.

Each payment shall be marked with MSFC SAA8-2033444.1

B. NASA will not provide services or incur costs beyond the current funding. Although NASA has made a good faith effort to accurately estimate its costs, it is understood that NASA provides no assurance that the proposed effort under this Annex will be accomplished for the estimated amount. Should the effort cost more than the estimate, Partner will be advised by NASA as soon as possible. Partner shall pay all costs incurred and have the option of canceling the remaining effort, or providing additional funding in order to continue the proposed effort under the revised estimate. Should this Annex be terminated, or the effort completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds within one year after completion of all effort under this Annex, and promptly thereafter, at Partner's option return any unspent funds to Partner or apply any such unspent funds to other activities under the Umbrella

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Agreement. Return of unspent funds will be processed via Electronic Funds Transfer (EFT) in accordance with 31 C.F.R. Part 208 and, upon request by NASA, Partner agrees to complete the Automated Clearing House (ACH) Vendor/Miscellaneous Payment Enrollment Form (SF 3881).

## ARTICLE 5. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

- A. Data produced under this Annex which is subject to paragraph C. of the Intellectual Property Rights Data Rights Article of the Umbrella Agreement will be protected for the period of one year.
- B. Under paragraph H. of the Intellectual Property Rights Data Rights Article of the Umbrella Agreement, Disclosing Party provides the following Data to Receiving Party. The lists below may not be comprehensive, are subject to change, and do not supersede any restrictive notice on the Data provided.
- 1. Background Data:

N/A

2. Third Party Proprietary Data:

N/A

3. Controlled Government Data:

N/A

4. The following software and related Data will be provided to Partner under a separate Software Usage Agreement:

None

#### ARTICLE 6. TERM OF ANNEX

This Annex becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or one year from the Effective Date, whichever comes first, unless such term exceeds the duration of the Umbrella Agreement. The term of this Annex shall not exceed the term of the Umbrella Agreement. The Annex automatically expires upon the expiration of the Umbrella Agreement.

## ARTICLE 7. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Annex by providing thirty (30) calendar days written notice to the other Party.

## ARTICLE 8. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Annex.

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**Technical Points of Contact** 

NASA George C. Marshall Space Flight
Center
G-Space, Inc.
Ioana Cozmuta

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Marshall Space Flight Center, AL 35812
Chief Executive Officer
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## ARTICLE 9. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Modification of an Annex does not modify the terms of the Umbrella Agreement.

## ARTICLE 10. SIGNATORY AUTHORITY

The signatories to this Annex covenant and warrant that they have authority to execute this Annex. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE
FLIGHT CENTER

BY:\_\_\_\_\_\_\_\_ BY:\_\_\_\_\_\_\_ Ioana Cozmuta
Director Engineering Directorate

G-SPACE, INC.

BY:\_\_\_\_\_\_\_ BY:\_\_\_\_\_\_ Companies and Companies are companies and Companies and Companies are companies are companies and Companies are companies and Companies and Companies are companies are companies and Companies are companies and Companies are companies are companies are companies are companies and Companies are companies and companies are companies and companies are compa

DATE:\_\_\_\_\_ DATE:\_\_\_\_

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